

*Planorbis*, thanks to some helpers—men, women and children. When I gave them the enormous sum of twenty cents Mexican—about eight cents—they pretty nearly mobbed me. Mrs. T. said I should have given them four or five coppers and that for months to come every foreigner who went that way would have shells offered to him in the hope of finding another crazy man like me.

At Soochow I met Professor N. Gist Gee of Soochow University who took me out on the canals and lake for a beautiful afternoon's collecting. We saw the river life of the Chinese, the Sampan or house boats in which they are born, live and die; also we saw the fishing with trained cormorants, a queer sight of which I had read. More important we took somewhere from seven to ten species of shells which were everywhere plentiful: *Anodonta*, *Unio*, *Vivipara* (at least three species) a *Bythinia*, *Corbicula* and *Sphaerium*. It was most interesting and profitable day.

Very sincerely yours,

FRED BAKER.

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ON THE RETENTION OF THE ORIGINAL COLOR ORNAMENTATION IN  
FOSSIL BRACHIOPODS.

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BY DARLING K. GREGER.

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In 1908 the writer published what he believes to be the first recorded American occurrence of the preservation of the ornamental color design of a Palaeozoic brachiopod.\* In this notice the species described, *Cranaena morsii* Greger, came from the Craghead Creek Shales (Middle Devonian) of central Missouri, and at the time, we had in mind the remarkable fact of the preservation of the original color design rather than a suggestion that the markings described were a remnant of the original pigmentation. Our observations, however, since the publication of the article, lead us to believe that in rare instances the original pigment is retained, in a more or less altered condition.

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\* 1908, Greger, D. K., American Journal of Sci., Vol. 25, pp. 313-314.

In his work on the Middle Devonian of Wisconsin, Dr. H. F. Cleland\* figures three species of Brachiopoda, on which the original color design is preserved, viz., *Lingula milwaukeeensis* Cleland, Pl. 12, Figs. 3 and 4; *Lingula* sp. indet, Pl. 12, Fig. 5; and *Craenaena iowensis* Calvin, Pl. 13, Figs. 8 and 9. To this interesting list of occurrences we are able to add three more in which the preserved markings assume a definite pattern and another in which the entire shell is colored and of which we are somewhat dubious.

Greger Coll., No. 35-17. *Lingula* sp., Rowley† from the Grassy Creek Shale (Upper Devonian) of Pike County, Missouri, frequently shows dark blue bands, concentrically arranged, and these we at first attributed to variation in the thickness of the test, but after carefully removing the shell from the matrix, their true character was discovered. The ornamental design of this species is identical with that of *Lingula milwaukeeensis* Cleland. That these bands of color are a vestige of the original ornamentation of the species can scarcely be questioned.

Greger Coll., No. 282-5. *Dielasma Calvini*, H. & W., from the upper beds of the Craghead Creek Shale, in two examples, show rays of color, the design being quite similar to the markings shown on *Craenaena iowaensis* Calvin, in Dr. Cleland's figures. In our shells the lines are very faint and at best afford little more than a suggestion of the color design.

Greger Coll., No. 70-10. A specimen of *Orbiculoidea humilis* Hall, from the Hamilton shales of the Canandaigua Lake region of New York, retains the color pattern, which consists of alternating concentric bands of light greenish horn and dark chestnut brown.

Greger Coll., No. 79-12. *Crania modesta*, W. & St. J., from the Cherokee Shale (Pennsylvanian) of Central Missouri, attached to a section of a large Crinoid Column, are dark blue or slate-colored, their host being pearl-gray or nearly white.

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\* 1911, Cleland, H. F., Wis. Geol. and Nat. Hist. Surv. Bull., No. 21, Pl. 12, figs. 3, 4, 5; Pl. 13, figs. 8, 9.

† 1908, Rowley, R. R., Mo. Geol. Surv., Vol. 8, 2nd Series, p. 74, Pl. 17, fig. 14.

The finest example of the preservation of color pattern in a fossil Brachiopod that has yet come to the writer's notice, consists of two specimens of *Coenothyris vulgaris* Schl., from the Muschelkalk (Triassic), the design assuming the form of fasciculated rays of bright red, the body color varying from light buff to dull horn. The fresh bright color shown in these shells suggests the retention of original pigment, practically unaltered, during the process of the silization. Greger Coll., No. 351-4.

In conclusion, we would also call attention to *Disciniscu lugubris* Conrad, from the Choptank Formation (Miocene) of Maryland. All specimens of this Brachiopod that have passed under the writer's observation are blue-black and on one small example faint concentric bands are present.

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#### NOTES.

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PETRICOLA DACTYLUS SOWERBY.—In a recent letter from Mr. G. W. Pepper he says: "In all published accounts pertaining to the habits of *Petricola pholadiformis* it is stated that they are 'found living in hard clay.' This seems to be entirely at variance with my collecting in Buzzard's Bay, Mass., where I obtained over 100 specimens from a colony living in sand and gravel in company with the common clam (*Mya arenaria*). In fact I have been unable to find them except associated with the common clam." In writing to Mr. Pepper I obtained some of the specimens, and was pleased to find that they were *P. dactylus*, a much scarcer species on the New England coast than *P. pholadiformis*, and from which it is readily distinguished by its less cylindrical form, due to the wider and more flattened valves. The dividing line between the larger and smaller ribs is less clearly defined. In well-preserved specimens the very young, yellowish shells, described as *Gastranella tumida*, can be distinctly seen on the umbones.—C. W. JOHNSON.

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LYMNÆA EMARGINATA MIGHELSI ABSENT IN ITS OLD LOCALITIES.—In September I visited Square Lake Inlet, where *L.*